

BIRCH, STEWART, KOLASCH & BIRCH, LLP

INTELLECTUAL PROPERTY LAW  
8110 GATEHOUSE ROAD  
SUITE 500 EAST  
FALLS CHURCH, VA 22042-1210  
USA  
(703) 205-8000

FAX: (703) 205-8050  
(703) 698-8590 (G IV)

e-mail: mailroom@bskb.com  
web: http://www.bskb.com

CALIFORNIA OFFICE:  
COSTA MESA, CALIFORNIA

THOMAS S. AUCHTERLONIE  
JAMES T. ELLER, JR.  
SCOTT L. LOWE  
MARK J. NUEL, Ph.D.  
D. RICHARD ANDERSON  
PAUL C. LEWIS  
MARK W. MILSTEAD\*  
RICHARD J. GALLAGHER  
JAYNE M. SAYDAH\*

REG. PATENT AGENTS  
FREDERICK R. HANDREN  
MARYANNE ARMSTRONG, Ph.D.  
MAKI HATSUMI  
MIKE S. RYU  
CRAIG A. McROBBIE  
GARTH M. DAHLEN, Ph.D.  
LAURA C. LUTZ  
ROBERT E. GOOZNER, Ph.D.  
HYUNG N. SOHN  
MATTHEW J. LATTIS  
ALAN PEDERSEN-GILBERT  
C. KEITH MONTGOMERY  
TIMOTHY R. WYCKOFF  
KRISTI L. RUPERT, Ph.D.  
LARRY J. HUME  
ALBERT LEE  
HARAY A. SAYADIAN, Ph.D.

10/12/00  
2091-0221P-SP

TERRELL C. BIRCH  
RAYMOND C. STEWART  
JOSEPH A. KOLASCH  
JAMES M. SLATTERY  
BERNARD L. SWEENEY\*  
MICHAEL K. MUTTER  
CHARLES GORENSTEIN  
GERALD M. MURPHY, JR.  
LEONARD R. SVENSSON  
TERRY L. CLARK  
ANDREW D. MEIKLE  
MARC S. WEINER  
JOE MCKINNEY MUNCY  
ROBERT J. KENNEY  
DONALD J. DALEY  
JOHN W. BAILEY  
JOHN A. CASTELLANO, III  
GARY D. YACURA  
OF COUNSEL  
HERBERT M. BIRCH (1905-1996)  
ELLIOT A. GOLDBERG\*  
WILLIAM L. GATES\*  
EDWARD H. VALANCE  
RUPERT J. BRADY (RET)\*  
F. PRINCE BUTLER  
FRED S. WHISENHUNT

\*ADMITTED TO A BAR OTHER THAN VA

Date: October 12, 2000

Docket No.: 2091-0221P-SP

Assistant Commissioner for Patents  
Box PATENT APPLICATION  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is the patent application of

Inventor(s): HARA, Makoto

For: METHOD, APPARATUS AND RECORDING MEDIUM FOR PRINTING CONTROL

Enclosed are:

X A specification consisting of 24 pages

X 04 sheet(s) of Formal drawings

X An assignment of the invention

X Certified copy of Priority Document(s)

X Executed Declaration X Original      Photocopy

     A verified statement to establish small entity status under 37  
CFR 1.9 and 37 CFR 1.27

     Preliminary Amendment

     Information Disclosure Statement, PTO-1449 and reference(s)

Other \_\_\_\_\_

The filing fee has been calculated as shown below:

			LARGE ENTITY		SMALL ENTITY	
FOR	NO. FILED	NO. EXTRA	RATE	FEE	RATE	FEE
BASIC FEE	***** ***** *****	***** ***** *****	***** ***** *****	\$710.00	or ***** ***** *****	\$355.00
TOTAL CLAIMS	12 - 20 =	0	x18 = \$	0.00	or x 9 = \$	0.00
INDEPENDENT	3 - 3 =	0	x80 = \$	0.00	or x 40 = \$	0.00
MULTIPLE DEPENDENT CLAIM PRESENTED <u>no</u>			+270 = \$	0.00	or +135 = \$	0.00
			TOTAL \$ 710.00		TOTAL \$ 0.00	

X A check in the amount of \$ 750.00 to cover the filing fee and recording fee (if applicable) is enclosed.

— Please charge Deposit Account No. 02-2448 in the amount of \$ \_\_\_\_\_. A triplicate copy of this transmittal form is enclosed.

— No fee is enclosed.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. 1.16 or under 37 C.F.R. 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By \_\_\_\_\_

MICHAEL K. MUTTER

Reg. No. 29,680

P. O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000  
MKM/rem

SCANNED, # 11

# METHOD, APPARATUS AND RECORDING MEDIUM FOR PRINTING CONTROL

## BACKGROUND OF THE INVENTION

### Field of the Invention

5           The present invention relates to a method and an apparatus for controlling printing means so as to receive order information and to carry out printing according to the order information. The present invention also relates to a computer-readable recording medium storing a program to cause a computer to execute the printing control method.

### Description of the Related Art

10           Digital photographic service systems for carrying out various kinds of digital photographic services such as storing photographic images obtained by a user in an image server after digitization, providing the images to the user after recording the images in a CD-R, and receiving an order of additional prints of the images have been known. In such a system, a user reproduces the images by installing, in his/her personal computer, dedicated viewer software for reproducing images  
15           recorded in a CD-R. In the case where an additional print is ordered, the user generates an order file describing the content of the order by using an ordering function of the viewer software. The user then brings the order file and the CD-R to a DPE store and the DPE store sends the order file  
20           and the CD-R to a laboratory where the ordered image is  
25

generated.

Furthermore, network photographic service systems for storing (registering) digital images of users in systems of service providers and for receiving printing orders or the like via networks such as the Internet have also been proposed as one form of the digital photographic service systems.

In such a network photographic service system, a server computer (hereinafter called an "image server") having a scanner, a printer, and a large-capacity disc is installed in a wholesale laboratory for providing the digital photographic services to users. Images photographed by users are stored in the image server and various kinds of services such as ordering additional prints, attachment of the images to an e-mail message, and downloading of image data are provided by enabling the users to access the image server via a network. In such a service, a user accesses the image server from his/her personal computer by using predetermined application software and orders an additional print or the like. Meanwhile, in the laboratory, photographic processing such as additional print generation, generation of picture postcards, generation of an album, composition of images, and trimming is carried out on the image data based on order information from the user and transfers the processed data to the user or notifies the user of completion of the processing by using an e-mail message.

The "order information" herein referred to means information such as a processing number indicating the content of the service (such as additional print generation and postcard generation), an image number indicating an image, a print size, a print quantity, the quality of print paper (glossy or non-glossy), thickness of the print paper, the content of the photographic processing, and trimming information.

In the network photographic service system described above, printing is carried out after an operator in the laboratory has confirmed the content of the order information. In the case where the content of the order information is a printing order including text, such as postcard generation, it is necessary to confirm the content of the text or the arrangement of the text. Therefore, confirmation by the operator is indispensable. However, depending on the content of the order information, confirmation of all the order information merely increases a workload on the operator, since there are some cases where printing can be carried out immediately without confirmation, such as the case of ordinary printing of only one photograph.

The present invention has been conceived based on consideration of the above problem. An object of the present invention is therefore to provide a printing control method and a printing control apparatus enabling reduction of an

operator's workload upon carrying out printing according to order information, and also to provide a computer-readable recording medium storing a program to cause a computer to execute the printing control method.

5

#### SUMMARY OF THE INVENTION

A printing control method of the present invention is a method of controlling print output of an image from printing means based on order information regarding the print output, and the method comprises the steps of:

receiving the order information;

judging whether a print based on the order information is a target of automatic printing or manual printing;

issuing a printing instruction to the printing means to carry out printing based on the order information in the case where the print has been judged to be the target of automatic printing; and

suspending the printing instruction to the printing means until a predetermined printing instruction is issued, in the case where the print has been judged to be the target of manual printing.

The "order information" herein referred to is generated by a user on his/her personal computer or the like by referring to an image obtained by the user from a CD-R or by downloading. For the order information, various kinds of format such as a format enabling writing or selection of the content of an

order corresponding to each image in index images, or a format enabling writing or selection of the content of an order corresponding to the names of an image file can be used. As the content of the order information, a processing number indicating the content of a service (such as additional print generation or postcard generation), an image number indicating the image, a print size, a print quantity, the quality of print paper (glossy or non-glossy), the thickness of the print paper, the content of photographic processing, and trimming information can be used, for example.

As one form of order information reception, reception via a network or reception by reading the order information recorded in a removable recording medium such as an FD, an MO disc, or a ZIP disc brought to the laboratory can be used, for example.

"Judging whether a print based on the order information is a target of automatic printing or manual printing" refers to judging whether the automatic printing or the manual printing needs to be carried out based on the content of the order information. For example, in the case where the content of the order information is "printing 5 ordinary prints", confirmation by an operator is not necessary. Therefore, the prints are judged to be the target of automatic printing. In the case where the content of the order information is "generation of 20 postcards", the postcards are judged to be

the target of manual printing, since the confirmation by an operator is necessary.

"Issuing a printing instruction to the printing means" refers to causing the printing means to carry out printing according to the order information by inputting image data corresponding to the content of the order information to the printing means. If the printing means carries out printing immediately after the image data are input thereto, the instruction is issued by inputting the image data to the printing means.

The "predetermined printing instruction" is an instruction to the printing means to carry out printing after the operator has confirmed the content of the order information.

"Suspending the printing instruction to the printing means" refers to suspending processing regarding the order information without carrying out printing in the case where the print has been judged to be the target of manual printing. If the printing means carries out printing immediately after input of the image data, the printing instruction is suspended by suspending the input of the image data to the printing means. When a plurality of items of the order information are processed consecutively, in the case where a plurality of the order information items have been judged to be the targets of manual printing, the printing instructions regarding the



order information items are suspended. The operator regularly confirms the content of the order information items whose printing instructions have been suspended, to carry out printing based on the order information items for manual printing.

A plurality of printing means may exist. In this case, printing means dedicated to automatic printing and manual printing are used. In the case where the print has been judged to be the target of automatic printing, printing means dedicated to automatic printing carries out printing. On the other hand, printing is carried out by the printing means dedicated to manual printing in the case where the print has been judged to be the target of manual printing.

In the printing control method of the present invention, it is preferable for the order information to be transferred via a network.

In the printing control method of the present invention, it is preferable for the judgment of the automatic printing target or the manual printing target to be made based on the content of the order information by referring to a table indicating judgment criteria.

The "table" describes the judgment criteria as to whether automatic printing or manual printing is suitable based on the content of the order information. By referring to this table, it can be judged whether the print is the target

of automatic printing or manual printing based on the order information.

5 In the printing control method of the present invention, it is preferable for the order information to include information indicating whether the print is the target of automatic printing or manual printing.

10 A printing control apparatus of the present invention is an apparatus for controlling print output of an image from printing means based on order information regarding the print output. The printing control apparatus comprises:

reception means for receiving the order information;

judgment means for judging whether a print based on the order information is a target of automatic printing or manual printing;

15 instruction means for issuing a printing instruction to the printing means to carry out printing based on the order information in the case where the print has been judged to be the target of automatic printing; and

20 confirmation means for suspending the printing instruction to the printing means until a predetermined printing instruction is issued, in the case where the print has been judged to be the target of manual printing.

25 In the printing control apparatus of the present invention, it is preferable for the order information to be transferred via a network.

SCANNED, # 210

Furthermore, in the printing control apparatus of the present invention, it is preferable for the judgment means to judge by referring to a table indicating criteria of judgment as to whether automatic printing or manual printing is suitable based on the content of the order information.

Moreover, in the printing control apparatus of the present invention, it is also preferable for the order information to include information indicating whether the print is the target of automatic printing or manual printing.

The printing control method of the present invention may be provided as a program stored in a computer-readable recording medium to cause a computer to execute the printing control method.

According to the present invention, in the case where the print based on the order information has been judged to be the target of automatic printing, the printing instruction is issued to the printing means and the printing based on the order information is carried out. Meanwhile, in the case where the print based on the order information has been judged to be the target of manual printing, the printing instruction to the printing means is suspended until the predetermined printing instruction is issued. Therefore, printing is carried out immediately when confirmation by the operator is unnecessary, and printing can be suspended until confirmation by the operator if confirmation is necessary. As a result,

the operator does not need to confirm the content of the order information in the case of automatic printing. Furthermore, in the case where a plurality of items of order information are processed, printing is suspended for prints whose order information indicates that they are targets of manual printing. Therefore, it becomes unnecessary to constantly monitor a printing operation, which leads to reduction in the operator's workload and efficient printing.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a block diagram of a network photographic service system adopting a printing control apparatus according to an embodiment of the present invention;

Figure 2 is a block diagram of printing control means;

Figure 3 shows an example of a table stored in judgment means;

Figure 4 shows an example of the content of order information stored in temporary storing means; and

Figure 5 is a flow chart showing an operation of the embodiment.

#### DESCRIPTION OF THE PREFERRED EMBODIMENT

Hereinafter, an embodiment of the present invention will be explained with reference to the accompanying drawings.

Figure 1 is a block diagram showing a network photographic service system adopting a printing control apparatus according to an embodiment of the present invention.

In Figure 1, a user terminal 11 is a personal computer of a user or an order processing terminal installed at a service provider or the like for users who do not possess a personal computer. A laboratory 12 is a system for carrying out printing. The laboratory 12 comprises reading means 13 for reading images from a film brought in by a user and for obtaining high resolution image data SH and low resolution image data SL, a database 14 for storing the high resolution image data SH, output means 15 for outputting the low resolution image data SL to the user terminal 11 via a network 19, and printing control means 17 for receiving an order file F in which order information has been described by the user and for controlling a printer 18 based on the order information described in the order file F. The user may request printing directly from the laboratory 12, or register via a store dedicated to order reception. The user terminal 11 and the laboratory 12 exchange the image data and the order file F via the network 19.

Figure 2 is a block diagram showing an outline configuration of the printing control means 17. As shown in Figure 2, the printing control means 17 comprises order reception means 21 for receiving the order file F describing the order information generated by the user, temporary storing means 22 for temporarily storing the order file F, judgment means 23 for judging, based on the order information described

in the order file F, whether a print is a target of automatic printing or manual printing, and confirmation means 24 for confirming the content of printing in the case where the print has been judged to be the target of manual printing.

5           The judging means 23 stores a table indicating criteria for judging whether the print is the target of automatic printing or manual printing based on the order information, according to the content of the order information such as a type or quantity of printing. By referring to this table, the judgment means 23 judges whether the print is the target of automatic printing or manual printing based on the order information. An example of this table is shown in Figure 3. In the table shown in Figure 3, the type of print and a quantity limit thereof are determined, and when the quantity of prints exceeds the quantity limit, the prints are judged to be the targets of manual printing. For example, in the case where the content of the order information stored in the temporary storing means 22 is as shown in Figure 4, a number 001 is judged to be the target of manual printing, since it exceeds the quantity limit. However, numbers 002 and 003 are judged to be the targets of automatic printing since they do not exceed the quantity limit.

10  
15  
20  
25           In other words, in the case where the content of the order information indicates generation of postcards, it is necessary to confirm the text and arrangement thereof. If

the prints are confirmed after being generated, all of the prints are wasted in the case where the text has not been printed adequately. In the case of ordinary prints, it is unnecessary to confirm the text arrangement. However, in the case where the quantity of prints is large, the large quantity of prints are wasted if a mistake is found after printing. Therefore, the table is set to indicate manual printing of postcards if the quantity of prints is 10 or more which is a comparatively small quantity. In the case of ordinary printing, the table is set to indicate manual printing if the quantity is 100 or more, which is comparatively large.

The judgment means 23 judges the order information in the order file F. In the case where the prints have been judged to be the targets of automatic printing, the judgment means reads the high resolution image data SH to be printed from the database 14 and transfers the data and the order information to the printer 18 to cause the printer 18 to carry out printing. Meanwhile, in the case where the prints have been judged to be the target of manual printing, the judgment means 23 transfers the order file F to the confirmation means 24 and temporarily stores the order file F therein. In the case where a plurality of order files are temporarily stored in the temporary storing means 22, the content of the order information is judged consecutively. When the prints are the targets of automatic printing, printing is sequentially

carried out by the printer 18 while the printing is suspended in the case where the prints are the targets of manual printing.

5 The confirmation means 24 comprises input means such as a mouse and a keyboard, and a monitor for displaying an image (both not shown). The confirmation means 24 is regularly checked by an operator during a printing operation and the content of printing is displayed on the monitor by an instruction of the operator if the order file F of the manual printing target is temporarily stored. The operator confirms the printing content displayed on the monitor and corrects the content if necessary. The operator inputs an instruction to carry out printing by using the input means. The high resolution image data SH which are necessary for printing are read from the database 14 in response to the instruction and transferred together with the order information to the printer 18 to carry out printing.

Operation of this embodiment will be explained next. Figure 5 is a flow chart showing the operation of this embodiment. The user brings a negative film to the store for order reception or directly to the laboratory 12, and registers the images (Step S1). In the laboratory 12, the reading means 13 reads the film brought in by the user and obtains the high resolution image data SH and the low resolution image data SL representing the images recorded on



the film (Step S2). The high resolution image data SH obtained in this manner are stored in the database 14 (Step S3). Meanwhile, the low resolution image data SL for display and confirmation of the images on the user terminal 11 are provided to the user by the output means 15 (Step S4). The low resolution image data SL are provided to the user by disclosing the data on the network 19 only to the user. In this manner, the user can determine the content of an order by confirming the images on the user terminal 11.

The user browses the low resolution image data SL by using a web browser or the like (Step S5), and generates the order file F describing the order information for placing an order (Step S6). The order file F generated in this manner is transferred to the laboratory 12 via the network 19 (Step 7).

In the laboratory 12, the order file F is received by the order reception means 21 (Step S8) and temporarily stored in the temporary storing means 22. The judgment means 23 judges whether the order information described in the order file F is suitable for automatic printing or manual printing (Step S9). In the case where the prints have been judged to be the targets of automatic printing, the high resolution image data SH are read from the database 14 and input to the printer 18 together with the order file F, and printing is carried out (Step S13). Meanwhile, in the case where the

prints have been judged to be the targets of manual printing,  
the order file F is temporarily stored by the confirmation  
means 24 (Step S10).

5 The operator regularly confirms whether or not the order  
file F is stored in the confirmation means 24. If the order  
file F is temporarily stored in the confirmation means 24,  
the content of printing is displayed on the monitor based on  
the order information in the order file F in response to the  
instruction by the operator. The operator confirms the  
content of the printing displayed on the monitor and inputs  
confirmation from the input means if the content is correct  
(Step S11), and printing is carried out (Step S13). Meanwhile,  
if correction is necessary, the operator carries out the  
correction by inputting the correction from the input means  
until a result at Step S11 becomes affirmative (Step S12).  
15 Once the result at Step S11 becomes affirmative, printing is  
carried out (Step S13).

As has been described above, in this embodiment, if the  
prints are the targets of automatic printing not requiring  
20 the confirmation by the operator, the printing is carried out  
immediately. In the case where the prints are the targets  
of manual printing requiring the confirmation by the operator,  
printing can be suspended until the confirmation is completed.  
Therefore, it becomes unnecessary for the operator to confirm  
25 the content of printing for the targets of automatic printing.

Furthermore, in the case where a plurality of items of the order information are processed consecutively, printing is suspended for the case of the order information regarding the prints of manual printing. Therefore, it becomes unnecessary to constantly monitor the printing operation. In this manner, a workload of the operator can be reduced and printing can be carried out efficiently.

In the above embodiment, the order file F received by the order reception means 21 is temporarily stored in the temporary storing means 22. However, the order file may be input immediately to the judgment means 23. In this case, if the prints have been judged to be the targets of manual printing, the order file F is temporarily stored in the confirmation means 24 as in the above embodiment.

In the above embodiment, based on the order information the prints are judged to be the targets of automatic printing or manual printing, by judging the content of the order information described in the order file F. However, the user may include a judgment result as to whether the prints are the targets of automatic printing or manual printing in the order information by using the user terminal 11. In this case, the user may judge whether the prints are the targets of automatic printing or manual printing. Alternatively, the judgment may be made by allocating the function of the judgment means 23 to the user terminal 11. In this manner, the printing

control means 17 in the laboratory 12 can judge whether the prints based on the order information are the targets of automatic printing or manual printing simply by confirming the content of the order information. Therefore, processing becomes faster.

Furthermore, in the above embodiment, the judgment means 23 judges whether the prints are the targets of automatic printing or manual printing by referring to the table indicating the type and the quantity of prints as shown in Figure 3. However, a print size, a kind of a photosensitive material, a kind of image data (such as JPEG or FlashPix), or a combination of these may be used for judging the automatic printing target and the manual printing target. For example, as to the print size, a print is judged to be the target of automatic printing if the size thereof is L, which is normal. In the case where the size is a special size such as A4, the print is judged to be the target of manual printing, since a cartridge of the printer 18 needs to be changed. If the photosensitive material is glossy, which is frequently used, the print is judged to be the target of automatic printing. In the case where the material is non-glossy which is not frequently used, the print is judged to be the target of manual printing, since a cartridge of the printer 18 needs to be changed. As to the image data, the print is judged to be the target of automatic printing if the image data are of JPEG

format which is normally used. In the case where the image data are of a special file format, such as FlashPix, the print is judged to be the target of manual printing.

In the above embodiment, the user transfers the order file F via the network 19 to the laboratory 12. However, the order file F may be recorded in a recording medium such as an FD and brought to the laboratory 12. In this case, the order reception means 21 of the printing control means 17 reads the order file F from the recording medium in order to process the order.

Moreover, in the above embodiment, the high resolution image data SH obtained by the reading means 13 in the laboratory 12 are stored in the database 14 thereof. However, without storing the data in the laboratory 12, the data may be provided to the user by being recorded in a large-capacity recording medium such as a CD-R or an MO disc, or via the network 19. In this case, the user sends the high resolution image data SH to be the target of printing to the laboratory 12 via the network 19 or via a recording medium together with the order file F.

In addition, all of the contents of Japanese Patent Application No. 11(1999)-289131 are incorporated into this specification by reference.

What is claimed is:

1. A printing control method for controlling print output of an image from printing means based on order information regarding the print output, the printing control method comprising the steps of:

receiving the order information;

judging whether a print is a target of automatic printing or manual printing based on the order information;

issuing a printing instruction to the printing means to carry out printing in the case where the print has been judged to be the target of automatic printing based on the order information; and

suspending the printing instruction to the printing means until a predetermined printing instruction is issued, in the case where the print has been judged to be the target of manual printing.

2. A printing control method as claimed in Claim 1, wherein the order information is transferred via a network.

3. A printing control method as claimed in Claim 1, wherein the step of judging is carried out by referring to a table indicating criteria of judgment as to whether automatic printing or manual printing is suitable based on the content of the order information.

4. A printing control method as claimed in Claim 1, wherein the order information includes information

indicating whether the print is the target of automatic printing or manual printing.

5. A printing control apparatus for controlling print output of an image from printing means based on order information regarding the print output, the printing control apparatus comprising:

reception means for receiving the order information;

judgment means for judging whether a print is a target of automatic printing or manual printing based on the order information;

instruction means for issuing a printing instruction to the printing means to carry out printing in the case where the print has been judged to be the target of automatic printing based on the order information; and

confirmation means for suspending the printing instruction to the printing means until a predetermined printing instruction is issued, in the case where the print has been judged to be the target of manual printing.

6. A printing control apparatus as claimed in Claim 5, wherein the order information is transferred via a network.

7. A printing control apparatus as claimed in Claim 5, wherein the judgment means judges by referring to a table indicating criteria of judgment as to whether automatic printing or manual printing is suitable based on the content of the order information.

8. A printing control apparatus as claimed in Claim 5, wherein the order information includes information indicating whether the print is the target of automatic printing or manual printing.

5 9. A computer-readable recording medium storing a program to cause a computer to execute a printing control method for controlling print output of an image from printing means based on order information regarding the print output, the program comprising the procedures of:

10 receiving the order information;

judging whether a print is a target of automatic printing or manual printing based on the order information;

15 issuing a printing instruction to the printing means to carry out printing in the case where the print has been judged to be the target of automatic printing based on the order information; and

20 suspending the printing instruction to the printing means until a predetermined printing instruction is issued, in the case where the print has been judged to be the target of manual printing.

10. A computer-readable recording medium as claimed in Claim 9, wherein the order information is transferred via a network.

25 11. A computer-readable recording medium as claimed in Claim 9, wherein the procedure of judging is a procedure of





## ABSTRACT OF THE DISCLOSURE

Upon carrying out printing based on order information, a workload of an operator can be reduced. An order file transferred to a laboratory via a network is input to printing control means and accepted by order reception means. The order file is temporarily stored in temporary storing means and input to judgment means. The judgment means judges whether a print is a target of automatic printing or manual printing based on the order information described in the order file F. In the former case, the order information and image data to be printed are input to a printer and printing is carried out. In the latter case, confirmation means temporarily stores the order file F. An operator regularly confirms the order file of manual printing target and the content of printing by using the confirmation means, and inputs the image data to be printed and the order file to the printer to carry out printing.

FIG. 1

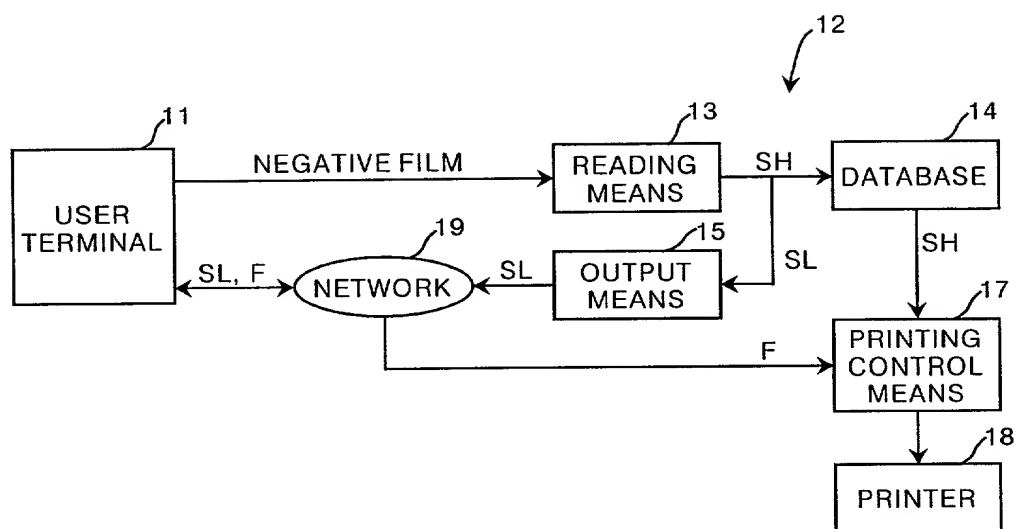
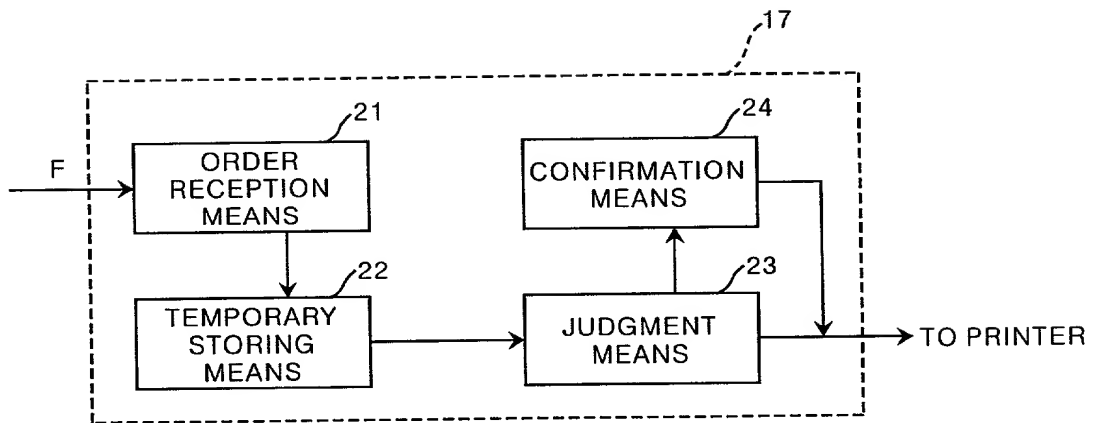


FIG.2



[illegible][illegible][illegible][illegible]



# Declaration and Power of Attorney For Patent Application

## 特許出願宣言書及び委任状

### Japanese Language Declaration

#### 日本語宣言書

下記の氏名の発明者として、私は以下の通り宣言します。

As a below named inventor, I hereby declare that:

Makoto Hara

私の住所、私書箱、国籍は下記の私の氏名の後に記載された通りです。

My residence, post office address and citizenship are as stated next to my name. c/o Fuji Photo Film Co., Ltd.,  
798 Miyanodai, Kaisei-machi,  
Ashigarakami-gun, Kanagawa-ken, Japan

下記の名称の発明に関して請求範囲に記載され、特許出願している発明内容について、私が最初かつ唯一の発明者（下記の氏名が一つの場合）もしくは最初かつ共同発明者であると（下記の名称が複数の場合）信じています。

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

"METHOD, APPARATUS AND RECORDING

MEDIUM FOR PRINTING CONTROL"

上記発明の明細書（下記の欄でx印がついていない場合は、本書に添付）は、

the specification of which is attached hereto unless the following box is checked:

☐ \_\_月\_\_日に提出され、米国出願番号または特許協定条約国際出願番号を\_\_\_\_とし、  
(該当する場合) \_\_\_\_\_ に訂正されました。

☐ was filed on \_\_\_\_\_  
as United States Application Number or  
PCT International Application Number  
\_\_\_\_\_ and was amended on  
\_\_\_\_\_ (if applicable).

私は、特許請求範囲を含む上記訂正後の明細書を検討し、内容を理解していることをここに表明します。

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

私は、連邦規則法典第37編第1条56項に定義されるとおり、特許資格の有無について重要な情報を開示する義務があることを認めます。

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**Japanese Language Declaration**  
(日本語宣言書)

私は、米国法典第35編119条(a)-(d)項又は365条(b)項に基づき下記の、米 国以外の国の少なくとも一カ国を指定している特許協力条約 365 (a) 項に基づき国際出願、又は外国での特許出願もしくは発明者証の出願についての外国優先権をここに主張するとともに、優先権を主張している、本出願の前に出願された特許または発明者証の外国出願を以下に、枠内をマークすることで、示しています。

**Prior Foreign Application(s)**外国での先行出願  
(patent) 289131/1999(Number)  
(番号)

Japan

(Country)  
(国名)(Number)  
(番号)(Country)  
(国名)

私は、第35編米国法典119条(e)項に基づいて下記の米 国特許出願規定に記載された権利をここに主張いたします。

(Application No.)  
(出願番号)(Filing Date)  
(出願日)

私は、下記の米国法典第35編120条に基づいて下記の米 国特許出願に記載された権利、又は米 国を指定している特許協力条約365条(c)に基づき権利をここに主張します。また、本出願の各請求範囲の内容が米国法典第35編112条第1項又は特許協力条約で規定された方法で先行する米 国特許出願に開示されていない限り、その先行米 国出願書提出日以降で本出願書の日本国内または特許協力条約国際提出日までの期間中に入手された、連邦規則法典第37編1条56項で定義された特許資格の有無に関する重要な情報について開示義務があることを認識しています。

(Application No.)  
(出願番号)(Filing Date)  
(出願日)(Application No.)  
(出願番号)(Filing Date)  
(出願日)

私は、私自身の知識に基づいて本宣言書中で私が行なう表明が真実であり、かつ私の入手した情報と私の信じることに基づき表明が全て真実であると信じていること、さらに故意になされた虚偽の表明及びそれと同等の行為は米国法典第18編第1001条に基づき、罰金または拘禁、もしくはその両方により処罰されること、そしてそのような故意による虚偽の声明を行なえば、出願した、又は既に許可された特許の有効性が失われることを認識し、よってここに上記のごとく宣誓を致します。

I hereby claim foreign priority under Title 35, United States Code, Section 119 (a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Priority Not Claimed  
優先権主張なし

12/10/1999

(Day/Month/Year Filed)  
(出願年月日)☐(Day/Month/Year Filed)  
(出願年月日)☐

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.

(Application No.)  
(出願番号)(Filing Date)  
(出願日)

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of application.

(Status: Patented, Pending, Abandoned)  
(現況: 特許許可済、係属中、放棄済)(Status: Patented, Pending, Abandoned)  
(現況: 特許許可済、係属中、放棄済)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## Japanese Language Declaration (日本語宣言書)

委任状: 私は下記の発明者として、本出願に関する一切の手続きを米特許商標局に対して遂行する弁理士または代理人として、下記の者を指名いたします。(弁理士、または代理人の氏名及び登録番号を明記のこと)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (list name and registration number)

TERRELL C. BIRCH (Reg. No. 19,382)  
 RAYMOND C. STEWART (Reg. No. 21,066)  
 JOSEPH A. KOLASCH (Reg. No. 22,463)  
 ANTHONY L. BIRCH (Reg. No. 26,122)

JAMES M. SLATTERY (Reg. No. 28,380)  
 BERNARD L. SWEENEY (Reg. No. 24,448)  
 MICHAEL K. MUTTER (Reg. No. 29,680)  
 CHARLES GORENSTEIN (Reg. No. 29,271)

GERALD M. MURPHY (Reg. No. 28,977)  
 LEONARD R. SVENSSON (Reg. No. 30,330)  
 TERRY L. CLARK (Reg. No. 32,644)  
 ANDREW D. MEIKLE (Reg. No. 32,868)

MARC S. WEINER (Reg. No. 32,181)  
 ANDREW F. REISH (Reg. No. 33,443)  
 JOE M. MUNCY (Reg. No. 32,334)  
 C. JOSEPH FARACI (Reg. No. 32,350)

書類送付先

Send Correspondence to:

BIRCH, STEWART, KOLASCH & BIRCH, LLP  
 P.O. BOX 747  
 FALLS CHURCH, VA 22040-0747  
 TEL: (703) 205-8000

直接電話連絡先: (名前及び電話番号)

Direct Telephone Calls to: (name and telephone number)

BIRCH, STEWART, KOLASCH & BIRCH, LLP  
 TEL: (703) 205-8000

唯一または第一発明者名

Full name of sole or first inventor

Makoto Hara

発明者の署名

日付

Inventor's signature

Date

Makoto Hara Oct. 3, 2000

住所

Residence

Kaisei-machi, Japan

国籍

Citizenship

Japan

私書箱

Post Office Address c/o Fuji Photo Film Co.,  
 Ltd., 798 Miyanodai, Kaisei-machi,  
 Ashigarakami-gun, Kanagawa-ken,  
 Japan

第二共同発明者

Full name of second joint inventor, if any

第二共同発明者

日付

Second inventor's signature

Date

住所

Residence

国籍

Citizenship

私書箱

Post Office Address

(第三以降の共同発明者についても同様に記載し、署名をすること)

(Supply similar information and signature for third and subsequent joint inventors.)